



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,890	12/09/2003	Ronald Glas	GS 0647 A	4671
20676	7590	05/10/2006	EXAMINER	
ALFRED J MANGELS 4729 CORNELL ROAD CINCINNATI, OH 452412433				PILKINGTON, JAMES
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/731,890	GLAS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	James Pilkington	3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 31 March 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-12 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann, USP 6,435,994 B1, in view of Cote et al, USP 6,356,848 B1.

Re clm 1, Friedmann discloses a continuously variable transmission (100) that includes:

- two conical pulley pairs (101 and 102)
- spaced parallel axes (C15/L14-35)
- an endless torque-transmitting means (103)

Friedmann does not disclose a sensor for detecting the speed of the endless torque-transmitting means.

Cote teaches a sensor (22) for detecting the speed of the endless torque-transmitting means (18) for the purpose of measuring the speed of the chain (C5/L16-17).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Friedmann and provide a sensor for detecting the speed of the endless torque-transmitting means, as taught by Cote, for the purpose of measuring the speed of the chain.

Re clm 2, Friedmann in view of Cote, as applied to clm 1, does not disclose a sensor carried on a guide bar that guides a slack strand of the endless torque-transmitting means and that can pivot about an axis that is parallel to the axes of conical pulley pairs.

Cote discloses the sensor (22) is carried on a guide bar (19) that guides a slack strand of the endless torque-transmitting means (18) and that can pivot about an axis that is parallel to the axes of the conical pulley pairs (at 51).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Friedmann and Cote and provide a sensor that is carried on a guide bar that guides a slack strand of the endless torque-transmitting means and that can pivot about an axis that is parallel to the axes of the conical pulley pairs, as taught by Cote, for the purpose of allowing the chain to move to vary the transmission ratio (C4/L44-50)

Re clm 3, Friedmann discloses the guide bar (104) is carried on a fixed support (114) positioned between the conical pulley pairs.

Re clm 4, Friedmann in view of Cote discloses the torque-transmitting means (103) is a plate link chain (Figure 1) that includes pins (Figure 1) that interconnect adjacent chain links.

Friedmann in view of Cote does not disclose that the sensor detects pins as they pass the sensor.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Friedmann in view of Cote and take the

magnetic members (29a-e) of Cote and install them on the pins of the chain link (103) of Friedmann to detect the pins as they pass the sensor for the purpose of measuring the speed of the chain when a sprocket member is absent from the system.

Re clm 5, Cote discloses that the sensor (22) is a proximity sensor (C5/L48)

Re clm 6, Cote discloses the sensor (22) is connected to a control unit (110) in which data is stored and determines the speed (C9-10).

Re clm 7 and 8, Cote that the number of magnets and the distance apart is stored in the control unit (110) (C5-10).

Re clm 9, Friedmann discloses that the fixed support (114) is a tubular member (C16/L20-21). The examiner notes that an oil pipe is a tubular member based on the definition of the word pipe in Merriam-Webster's Collegiate Dictionary (10<sup>th</sup> ed.). Merriam-Webster defines a pipe as a "tubular or cylindrical object, part or passage."

Re clm 10, Friedmann discloses the guide bar (104) is displaceable in a direction that is substantially perpendicular to the movement direction of the endless torque-transmitting means (103) (see Figure 3).

Re clm 11, Friedmann discloses the pivot axis (114) of the guide bar (104) is positioned between the pulley axes and is within a loop defined by the endless torque-transmitting means (103) (see Figure 2).

Re clm 12, Friedmann discloses the end faces of the pins are in frictional engagement with the conical surfaces of the conical disks (pulleys 101 and 102).

### ***Conclusion***

Art Unit: 3682

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

JP

5/4/2006



RICHARD RIDLEY  
SUPERVISORY PATENT EXAMINER